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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

AGUSTIN, PETER VINCENT

ART UNIT PAPER NUMBER

2652

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/904,077

Applicant(s)

AARTS ET AL.

Examiner

Peter Vincent M Agustin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to because of the following informalities:

Figure 1: Item 9 is pointing towards "optical player"; arrow needs to be modified to point towards "information carrier" as described by the specification.

Figure 2: Item 9 is pointing towards "scanning device"; arrow needs to be modified to point towards "information carrier" as described by the specification.

Figure 5C: Items 153 and 181 are shown twice, pointing to different parts. Numbers need to be deleted or modified as necessary.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

Page 9, line 28: Change "Figure" to --figure--.

Page 10, line 26: Change "first coil holder 83" to --first coil holder 93--.

Page 10, line 32: Change "second coil holder 89" to --second coil holder 99--.

Page 12, lines 31 and 33: Change "coil system 61" to --coil system 63--.

4. The disclosure is objected to because there are no appropriate subheadings for each section of the specification, e.g., "Background of the Invention" on page 1.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 6 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 6 (last 2 lines) recites the limitation "the two magnets of, respectively, the first part and the second part of the magnetic system". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 2, 3, 4, 5, 6, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikagame et al. (US 5,208,703) (hereafter Ikagame).

As per claim 1, Ikagame discloses an optical apparatus for supporting an objective lens, including: an optical scanning device (figure 6) provided with a radiation source (column 1, line 18), an optical lens system (figure 6, element 1) with an optical axis (figure 6, bottom of page) for focusing a radiation beam supplied (column 1, line 18), and an actuator (figure 6) by means of which the lens system can be displaced with

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respect to a stationary part (figure 6, elements 5, 6, 9 & 10) of the scanning device, the actuator being provided with an electric coil system (figure 6, elements 2 & 4) arranged in a fixed position (figure 6, element 1) with respect to the lens system, and a magnetic system (figure 6, elements 12 & 13) arranged in a fixed position with respect to the stationary part, viewed parallel to an X-direction (Track Direction (Y) of figure 6) extending perpendicularly to the optical axis (Focusing Direction (Z) of figure 6), is arranged in its entirety next to and outside the coil system (figure 6, elements 2 & 4), at least a part of the coil system being situated in a magnetic stray field of the magnetic system (figure 8, and column 5, line 53 thru column 6, line 11).

As per claim 2, Ikagame discloses that the magnetic system comprises a first part (figure 6, left magnets 12 & 13) and a second part (figure 6, right magnets 12 & 13) which are each arranged, in their entirety, next to and outside the coil system (figure 6, elements 2 & 4) near, respectively, a first side (left half of figure 6) of the lens system and a second side (right half of figure 6) of the lens system which, viewed in a direction parallel to the X-direction, is opposite the first side, a first part of the coil system (figure 6, left coils 4) arranged near the first side, and a second part of the coil system (figure 6, right coils 4) arranged near the second side, being situated, at least partly, in a magnetic stray field (figure 8, see magnetic lines between magnets 12 & 13) of, respectively, the first part and the second part of the magnetic system.

As per claim 3, Ikagame discloses that the first and second parts of the magnetic system, and the first and second part of the coil system are symmetrically arranged (see figure 6) with respect to the optical axis (Focusing Direction (Z)).

As per claim 4, Ikagame discloses that the first part (figure 6, left magnets) and the second part (figure 6, right magnets) of the magnetic system each comprise at least a first (figure 6, element 12) and a second (figure 6, element 13) permanent magnet which, viewed in a direction parallel to the optical axis, are arranged next to each other and have a direction of magnetization extending, respectively, parallel to the X-direction and parallel to an X'-direction opposite to the X-direction (note arrows of elements 12 & 13 have opposite directions); and the first part and the second part of the coil system (figure 6, elements 2 & 4) each comprise at least an electric coil having a first part (figure 7, element 20) and a second part (figure 7, element 21), which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis.

As per claim 5, Ikagame discloses that the first part (figure 6, left magnets) and the second part (figure 6, right magnets) of the magnetic system each comprise at least two permanent magnets (figure 6 shows three magnets on each side) arranged next to each other and have a direction of magnetization extending, respectively, parallel to the X-direction and parallel to an X'-direction opposite to said X-direction (note arrows of elements 12 & 13 have opposite directions); and the coil system comprises at least one electric coil having a first part (figure 7, element 20) and a second part (figure 7, element 21), which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis.

As per claim 6, Ikagame discloses that the X-direction (figure 6, Track Direction (Y)) extends transversely to an information track present on the information layer, and in

that the first part (figure 6, left magnets) and the second part (figure 6, right magnets) of the magnetic system each comprise at least two permanent magnets (figure 6 shows three magnets on each side) which, viewed parallel to the optical axis, are arranged next to each other and have a direction of magnetization extending, respectively, parallel to the X-direction and parallel to an X'-direction opposite to the X-direction (note arrows of elements 12 & 13 have opposite directions); while the coil system comprises an electric coil having a first part (figure 6, left coils) and a second part (figure 6, right coils), which are provided with wire portions extending perpendicularly to the X-direction and perpendicularly to the optical axis, said parts of the coil being arranged, viewed in a direction parallel to the optical axis, in a transition region of the two magnets (figure 8, elements 21 & 22, see magnetic lines between magnets 12 & 13) of, respectively, the first part and the second part of the magnetic system.

As per claim 7, Ikagame discloses that the X-direction extends at least substantially parallel to an information track present on the information layer (figure 6, Track Direction (Y)), and in that the first part (figure 6, left coils) and the second part (figure 6, right coils) of the coil system each comprise at least one further electric coil having a first part (figure 7, element 20) and a second part (figure 7, element 21), which are provided with wire portions extending parallel to the optical axis (figure 6, Focusing Direction (Z)), the first part and the second part of the further coil of the first part of the coil system (figure 6, left coils), viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first magnet (figure 6, element 12) and a magnetizable part (figure 6, elements 7 & 10) of the first part of the magnetic system

(figure 6, left magnets), which magnetizable part, viewed perpendicularly to the optical axis and perpendicularly to the X-direction, is situated next to the first magnet (figure 6, element 12), and the first part (figure 7, element 20) and the second part of the further coil (figure 7, element 21) of the second part of the coil system (figure 6, right coils), viewed in a direction parallel to the X-direction, being arranged directly opposite, respectively, the first magnet (figure 6, element 12) and a magnetizable part (figure 6, elements 7 & 10) of the second part of the magnetic system (figure 6, right magnets), which magnetizable part, viewed perpendicularly to the optical axis and perpendicularly to the X-direction, is situated next to the first magnet (figure 6, element 12).

As per claim 8, Ikagame discloses an optical player (column 1, lines 12-16) comprising an optical scanning device (figure 6), and a table (inherently suggested) on which the information carrier can be placed; said scanning device being provided with a radiation source (column 1, line 18), an optical lens system (figure 6, element 1) with an optical axis (figure 6, bottom of page) for focusing a radiation beam supplied (column 1, line 18), and an actuator (figure 6) by means of which the lens system can be displaced with respect to a stationary part (figure 6, elements 5, 6, 9 & 10) of the scanning device, and a displacement device (figure 6, elements 3 & 14) by means of which the lens system (figure 6, element 1) of the scanning device can be displaced, with respect to the axis of rotation (figure 6, Focusing Direction (Z)), mainly in a radial direction (figure 6, Track Direction (Y)).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Malissin et al. (US-4554653) discloses a focusing optical head movable radially by a carriage. This reference provides an alternative solution to the problem of the present invention involving weight reduction of the moving part of a magnet/coil system.


Nagasato et al. (US-6181670) discloses an objective lens driving device for correcting the tilt of an objective lens. The moving part of the optical head is presented in both moving magnet and moving coil configurations.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent M Agustin whose telephone number is (703) 305-8980. The examiner can normally be reached on Monday thru Friday 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Peter Agustin
12/16/2003


BRIAN E. MILLER
PRIMARY EXAMINER